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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,664	03/18/2004	Satoshi Ogawa	04177/LH	2113
1933	7590	07/07/2006	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC 220 Fifth Avenue 16TH Floor NEW YORK, NY 10001-7708			PIPALA, EDWARD J	
			ART UNIT	PAPER NUMBER
			3663	

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,664

Applicant(s)

OGAWA ET AL.

Examiner

Edward Pipala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-9 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/25/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/25/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to Applicant's election of claims 1, 2, 5, 6, 7, 8, 9 and 11 without traverse, received on April 5, 2006. Claims 3, 4 and 10 are hereby withdrawn from consideration.

Information Disclosure Statement

2. The IDS filed on 6/25/04 has been fully considered by the Examiner as indicated by the accompanying initialed copy of Applicant's form PTO-1449.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 5-9 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 4, the recitation "wherein said power supply section can freely be loaded ..." is considered indefinite because of the use of the word "can", in that this does not positively recite and distinctly point out whether or not the power supply section is or isn't "freely loaded on or off from said driving vehicle".

Claim 2, line 2, there is no antecedent basis for "the kinetic energy of said driving vehicle, in that "the" should be deleted.

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Claim 5, line 1, it is believed that “motor” should be replaced with “vehicle” so as to correspond with the preamble of claim 1, upon which it depends.

Applicant’s recitations of “capable of” in lines 2 and 3 of claim 1, as well as the recitation of “wherein” in line 4 are considered to be method limitations to an apparatus claim, which are not to be necessarily given any patentable weight.

In claim 2, line 2, the recitation of “wherein the kinetic energy of said driving vehicle” is considered to be a material or article worked upon with respect to section 2115 of the MPEP.

In claim 3, line 2, applicant is not clear and distinct with respect to in what manner or to what degree the driving motor is “partially shared” (i.e., 1/4th shared, 1/2, etc.).

In claim 5, the use of the term “especially” is seen to render the claim indefinite because the terms and conditions under which this determination have not been spelled out.

In claim 7, line 3, the recitation of being “mutually connectable” is considered to be to be indefinite because it does not further recite what is meant and encompassed by “mutually”.

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In claim 8, line 2, Applicant's recitation that the "power supply vehicle can drive by itself" again does not positively recite that it indeed does so.

In claim 11, line 4 the recitation of "capable of" once again becomes an issue of whether or not the recited act needs to be accomplished, as far as claim scope is concerned, and may also be seen as a method limitation in an apparatus claim.

The remaining dependent claims are included in this rejection because they depend from an indefinite base claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2 and 7 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Kodama et al. (USPN 6,390,215).

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With respect to independent claim 1, which essentially recites a vehicle and a power supply section capable of moving together with the vehicle, wherein the power supply section can freely be loaded onto or off of (disconnected) from the power supply section, please see figures 1 and 3, along with col. 1, line 35 through col. 2, line 57 and col. 4, ll. 8 – 23 of Kodama et al. which first discloses (in figure 1) an electric vehicle V pulling or attached to a trailer T₁ containing a supplementary battery pack, whereas Fig. 3 discloses an electric vehicle V with detachably coupled trailer T₂ containing a generating module 8, an engine E, a generator G (driven by engine E).

With respect to claim 2 and the conversion of kinetic energy to electric energy through regeneration, please see col. 1, ll. 45-58 and col. 2, ll. 32-34 which teach the use of regenerative braking and that the sub-battery (supplementary battery in the trailer of Fig. 1) is charged through regenerative action after the main battery B_m has been completely charged.

With respect to claim 7 which recites that the power supply section is configured as a power supply vehicle linked to said driving vehicle by mutually connectable connector sections, please see the first lines of the abstract which states that the sub-battery is detachably connected to the vehicle body, as well as lines 53-58 of col. 2 which further teach that "merely by connecting the trailer to the vehicle body, the connection of the sub-battery can be readily achieved".

Further the a) statements of intended use or field of use, b) "adapted to" or "adapted for" clauses, ^{"CAPABLE OF"} c) "wherein" clauses, or d) "whereby" clauses are

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essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2nd 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

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obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, 8, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al ('215) in view of Bidwell (US Pub. 2002/0038730).

As indicated above, Kodama et al. discloses an electric vehicle to which is attachably connected a trailer having at least a supplementary (sub) battery contained therein. Kodama et al. does not disclose the use of an independent driving motor separate from the driving unit of the vehicle, nor that the power supply vehicle can "drive by itself".

Bidwell discloses a powered trailer capable of propelling the vehicle it is attached to, and which has contained therein or thereon at least a battery and an electric motor for providing power to the axle of the trailer (thereby helping propel both itself and the vehicle to which it is attached).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the trailer of Kodama et al. with means by which to propel itself similar to that of Bidwell because both of the trailers are being used in the same field of endeavor of extending vehicle range through the use of and tailored battery packs.

With respect to claims 5 and 6 relating to providing a separate electric motor independent of the main "driving unit", please note that the above

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combination provides for an additional electric motor for driving the supply vehicle.

With respect to claim 8, please see the above combination of Kodama et al. and Bidwell for the subject matter of claim 8 relating to having the power supply vehicle "drive by itself".

With respect to claims 9 and 11, which recite that the power supply vehicle (trailer) comprises a generating engine, generator driven by the generating engine, and a driving motor driven by the generator (claim 9), and an accumulator for accumulating therein power from the generating engine or from the outside, please see the beginning of this Office action with respect to T₂ of figure 3 (wherein the trailer contains the sub-battery, generating engine E, and a generator), whereas the driving motor is that of Bidwell from the opening section of this 35 U.S.C. 103 rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Pipala whose telephone number is 571-272-1360. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ejp


JACK KEITH
SUPERVISORY PATENT EXAMINER